

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	pulse near vibration same wafer	USPAT; USOCR	ADJ	ON	2006/03/30 14:24
L2	8	(dechuck or dechucking) and (vibration or vibrator) and wafer	USPAT; USOCR	ADJ	ON	2006/03/30 15:10
L3	1	("5187519").PN.	USPAT; USOCR	OR	OFF	2006/03/30 15:10
S1	3062	(324/158.1).CCLS.	USPAT; USOCR	OR	OFF	2006/03/27 14:43
S2	176	S1 and (vibrator or vibration or vibrating)	USPAT; USOCR	ADJ	ON	2006/03/27 09:28
S3	176	S1 and (vibrator or vibration or vibrating)	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/03/27 09:28
S4	3408	(324/158.1).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/27 09:28
S5	198	S4 and (vibrator or vibration or vibrating)	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/03/27 10:12
S6	28	S4 and wafer and (stick or sticking)	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/03/27 10:21
S7	146	wafer sticking	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/03/27 10:22
S8	47	wafer sticking and (frequency or vibrating or vibrator or vibration)	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/03/27 10:38
S9	493	wafer same sticking and (frequency or vibrating or vibrator or vibration) not S8	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2006/03/27 11:21
S10	1811	(451/5).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/27 11:21
S11	200	S10 and (vibration or vibrating or vibrator)	USPAT; USOCR	ADJ	ON	2006/03/27 13:45
S12	1	("4542298").PN.	USPAT; USOCR	OR	OFF	2006/03/27 13:55
S13	1	("4832781").PN.	USPAT; USOCR	OR	OFF	2006/03/27 14:28

## EAST Search History

S14	1811	(451/5).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/27 17:22
S15	200	S14 and (vibration or vibrating or vibrator)	USPAT; USOCR	ADJ	ON	2006/03/27 14:28
S16	449	S14 and wafer not S15	USPAT; USOCR	ADJ	ON	2006/03/27 14:28
S17	84	S16 and (frequency)	USPAT; USOCR	ADJ	ON	2006/03/27 14:29
S18	769	(257/48).CCLS.	USPAT; USOCR	OR	OFF	2006/03/27 14:53
S19	23	S18 and (vibration or vibrator or vibrating)	USPAT; USOCR	ADJ	ON	2006/03/27 15:01
S20	119	wafer with sticking and (frequency)	USPAT; USOCR	ADJ	ON	2006/03/27 15:06
S21	0	wafer and (vibrator or vibrating or vibration)".clm"	USPAT; USOCR	ADJ	ON	2006/03/27 15:06
S22	0	semiconductor and (vibrator or vibrating or vibration)".clm"	USPAT; USOCR	ADJ	ON	2006/03/27 15:07
S23	3894	(semiconductor or wafer) and (vibrator or vibrating or vibration).clm.	USPAT; USOCR	ADJ	ON	2006/03/27 15:07
S24	3239	(semiconductor) and (vibrator or vibrating or vibration).clm.	USPAT; USOCR	ADJ	ON	2006/03/27 15:07
S25	1758	(wafer) and (vibrator or vibrating or vibration).clm.	USPAT; USOCR	ADJ	ON	2006/03/27 15:07
S26	2831	(semiconductor or wafer) and (frequency) and (vibrator or vibrating or vibration).clm.	USPAT; USOCR	ADJ	ON	2006/03/27 15:08
S27	26	("4480284"   "4667110"   "5103367"   "5151845"   "5155652"   "5166856").PN. OR ("5426558").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/03/27 15:10

# EAST Search History

S28	552	("0786231"   "2121590"   "2399679"   "2885849"   "2897424" "3150678"   "3177629"   "3197682"   "3253200"   "3330252" "3401628"   "3436109"   "3517437"   "3591348"   "3608711" "3645281"   "3662455"   "3687633"   "3691436"   "3695414" "3701636"   "3746896"   "3785507"   "3858097"   "3858721" "3881245"   "3901772"   "3915662"   "3916270"   "3929426" "3953174"   "3954191"   "3970494"   "3971193"   "3983401" "3993509"   "4025997"   "4163168"   "4184188"   "4191365" "4200191"   "4298120"   "4340774"   "4345299"   "4371588" "4384918"   "4399016"   "4410209"   "4412133"   "4447049" "4480284"   "4502094"   "4507975"   "4512391"   "4520421" "4522679"   "4536645"   "4539217"   "4551192"   "4554611" "4562924"   "4565600"   "4567938"   "4575995"   "4586743" "4591535"   "4603466"   "4609037"   "4615764"   "4621761" "4623513"   "4624897"   "4628991"   "4631103"   "4645218" "4665463"   "4667110"   "4667944"   "4672503"   "4692836" "4702788"   "4711014"   "4716649"   "4723863"   "4724510" "4724954"   "4732642"   "4733632"   "4735866"   "4751609" "4760916"   "4766515"   "4770946"   "4771730"   "4775438" "4778326"   "4807016"   "4810563"   "4817556"   "4820369" "4831212"   "4835344"   "4846928"   "4852743"   "4864461" "4865677"   "4883745"   "4897171"   "4909314"   "4912838" "4952299"   "4954207"   "4962049"   "4962441"   "4962836" "4966281"   "4966282"   "4969168"   "4979611"   "4997698" "5009735"   "5043305"   "5053627"   "5055964"   "5071485".PN. OR ("5073716"   "5080730"   "5089314"   "5095300" "5095759"   "5096364"   "5099571"   "5103367"   "5104834" "5115858"   "5117121"   "5129572"   "5131842"   "5134301" "5151845"   "5152774"   "5155652"   "5160152"   "5179498" "5181556"   "5191506"	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/03/27 15:14
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## EAST Search History

S29	40	S28 and (vibrator or vibrating or vibration)	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/03/27 15:25
S30	27133	frequency same difference and (vibration or vibrating or vibrator)	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/03/27 15:51
S31	10158	frequency same difference same(vibration or vibrating or vibrator)	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/03/27 15:51
S32	2242	(29/760,742,743,729,759).CCLS.	USPAT; USOCR	OR	OFF	2006/03/27 15:53
S33	268	S32 and (vibration or vibrating or vibrator)	USPAT; USOCR	ADJ	ON	2006/03/27 17:09
S34	9316	frequency same (detect or detection or detecting) same (vibrator or vibration or vibrating)	USPAT; USOCR	ADJ	ON	2006/03/27 15:58
S35	5012	frequency with (detect or detection or detecting) same (vibrator or vibration or vibrating)	USPAT; USOCR	ADJ	ON	2006/03/27 15:58
S36	3310	frequency with (detect or detection or detecting) with (vibrator or vibration or vibrating)	USPAT; USOCR	ADJ	ON	2006/03/27 15:58
S38	2376	frequency same (detect or detection or detecting) same (vibrator or vibration or vibrating) and apparatus.ti.	USPAT; USOCR	ADJ	ON	2006/03/27 15:59
S39	5869	frequency same (detect or detection or detecting) same (vibrator or vibration or vibrating) and amplitude	USPAT; USOCR	ADJ	ON	2006/03/27 16:06
S40	1947	frequency same (vibrator or vibration generating or vibration generator) same (detector or detecting)	USPAT; USOCR	ADJ	ON	2006/03/27 16:08
S41	514	frequency same (vibrator or vibration generating or vibration generator) same (detector or detecting or detection) same difference	USPAT; USOCR	ADJ	ON	2006/03/27 16:09
S42	27	frequency same (vibrator or vibration generating or vibration generator) same (detector or detecting or detection) and (sticking)	USPAT; USOCR	ADJ	ON	2006/03/27 16:21
S43	17	(minoru near hanazaki).in.	USPAT; USOCR	ADJ	ON	2006/03/27 16:22

## EAST Search History

S44	114	(minoru near hanazaki).in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/03/27 16:33
S45	5	S44 and (sticking)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2006/03/27 16:34
S46	28	S32 and (vibration or vibrating or vibrator) and wafer	USPAT; USOCR	ADJ	ON	2006/03/27 17:09
S47	140	S14 and (vibrator or vibrating or vibration) and (sensor or detector)	USPAT; USOCR	ADJ	ON	2006/03/27 17:22
S48	60	S14 and (vibrator or vibrating or vibration) and (sensor or detector) and wafer	USPAT; USOCR	ADJ	ON	2006/03/27 17:23
S49	35	S14 and (vibrator or vibrating or vibration) and wafer and (sensor or detector or sensing or detecting or detection) same (vibration or vibrating)	USPAT; USOCR	ADJ	ON	2006/03/28 08:02
S50	482	(vibration or vibrator) same (sensor or detector) same wafer	USPAT; USOCR	ADJ	ON	2006/03/28 08:03
S51	17	(vibration or vibrator) same (sensor or detector) same wafer and (sticking OR stick)	USPAT; USOCR	ADJ	ON	2006/03/28 08:11
S52	202	(vibration or vibrator) same (sensor or detector) same wafer and electrode	USPAT; USOCR	ADJ	ON	2006/03/28 08:11
S53	151	(vibration or vibrator) same (sensor or detector) same wafer and electrode and semiconductor	USPAT; USOCR	ADJ	ON	2006/03/28 08:12
S54	36	(vibration or vibrator) same (sensor or detector) same wafer same semiconductor and electrode	USPAT; USOCR	ADJ	ON	2006/03/28 08:12
S55	609	(vibrate) with wafer	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2006/03/28 13:36
S56	500	(vibrator) with wafer	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2006/03/28 13:36

## EAST Search History

S57	3	(vibrator) with wafer and "451". clas.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2006/03/28 13:36
S58	48	(vibrator) and wafer and "451".clas.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2006/03/28 13:37
S59	88	(vibrator) and wafer and sticking	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2006/03/28 13:40
S60	141	(vibrator or vibration near3 generator or vibration near3 device) same (vibration near3 (sensor or detector or detecting)) and wafer	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2006/03/28 13:46
S61	88	(vibrator or vibration near3 generator or vibration near3 device) same (vibration near3 (sensor or detector or detecting)) and wafer and semiconductor	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	ON	2006/03/28 13:46
S62	1	("4832781").PN.	USPAT; USOCR	OR	OFF	2006/03/28 13:59
S63	1	("4938992").PN.	USPAT; USOCR	OR	OFF	2006/03/28 13:59
S64	1	("6198616").PN.	USPAT; USOCR	OR	OFF	2006/03/28 14:00
S65	1	("4873447").PN.	USPAT; USOCR	OR	OFF	2006/03/28 14:00
S66	1	("4997606").PN.	USPAT; USOCR	OR	OFF	2006/03/28 14:00
S67	1	("5004924").PN.	USPAT; USOCR	OR	OFF	2006/03/28 14:01
S68	1	("5213451").PN.	USPAT; USOCR	OR	OFF	2006/03/28 14:02
S69	1	("5269881").PN.	USPAT; USOCR	OR	OFF	2006/03/28 14:03
S70	1	("5316278").PN.	USPAT; USOCR	OR	OFF	2006/03/28 14:04
S71	1401	(451/5).CCLS.	USPAT; USOCR	OR	OFF	2006/03/28 16:35
S72	527	S71 and wafer	USPAT; USOCR	ADJ	ON	2006/03/28 14:08

## EAST Search History

S73	360	S71 and wafer and (sensor or detector)	USPAT; USOCR	ADJ	ON	2006/03/28 14:08
S74	842	(29/705,707,708,709,74).CCLS.	USPAT; USOCR	OR	OFF	2006/03/28 16:36
S75	42	S74 and alarm	USPAT; USOCR	ADJ	ON	2006/03/28 16:44
S76	76626	("438").CLAS.	USPAT; USOCR	OR	OFF	2006/03/28 16:44
S77	38736	S76 and wafer	USPAT; USOCR	ADJ	ON	2006/03/28 16:44
S78	1387	S76 and wafer and (vibrating or vibration or vibrator)	USPAT; USOCR	ADJ	ON	2006/03/28 16:45
S79	438	S76 and wafer same (vibrating or vibration or vibrator)	USPAT; USOCR	ADJ	ON	2006/03/28 16:45
S80	405	S76 and wafer same (vibrating or vibration or vibrator) and semiconductor	USPAT; USOCR	ADJ	ON	2006/03/28 16:45
S81	438	S76 and wafer same (vibrating or vibration or vibrator)	USPAT; USOCR	ADJ	ON	2006/03/28 16:48
S82	203	S76 and wafer same (vibrating or vibration or vibrator) and frequency	USPAT; USOCR	ADJ	ON	2006/03/28 16:48
S83	82	S76 and wafer same (vibrating or vibration or vibrator) same frequency	USPAT; USOCR	ADJ	ON	2006/03/28 16:49
S84	7	S76 and wafer same (vibrating or vibration or vibrator) same frequency same (detector or sensor)	USPAT; USOCR	ADJ	ON	2006/03/28 16:49
S85	95	S76 and wafer same (vibrating or vibration or vibrator) and frequency and (detector or sensor)	USPAT; USOCR	ADJ	ON	2006/03/28 16:49
S86	29	S76 and wafer same (vibrating or vibration or vibrator) same (detector or sensor) and frequency	USPAT; USOCR	ADJ	ON	2006/03/28 17:10
S87	7	(US-20020182101-\$ or US-20040100007-\$ or US-20060017908-\$).did. or (US-6314800-\$ or US-6472840-\$ or US-6522388-\$).did. or (SU-1362363-\$).did.	US-PGPUB; USPAT; DERWENT	ADJ	ON	2006/03/29 08:17
S88	2	S87 and electrode	USPAT; USOCR	ADJ	ON	2006/03/29 08:17

## EAST Search History

S89	34	("2460726"   "2471009"   "4635892"   "4819182"   "5146690"   "5155523"   "5187519"   "5251863"   "5309755"   "5323466"   "5369348"   "5374025"   "5812420"   "5922964"   "5931441"   "5948972"   "5949257"   "6009985"   "6036162"   "6038013").PN. OR ("2002/0182101"   "2004/0100007"   "2006/0017908"   "6314800"   "6472840"   "6522388").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/03/29 08:54
S90	52	pulse with vibration same wafer	USPAT; USOCR	ADJ	ON	2006/03/30 08:28
S91	7	pulse near2 vibration same wafer	USPAT; USOCR	ADJ	ON	2006/03/30 08:31
S92	1	pulsed near2 vibration same wafer	USPAT; USOCR	ADJ	ON	2006/03/30 08:32
S93	0	(vibration with pulse) same duty same wafer	USPAT; USOCR	ADJ	ON	2006/03/30 08:33
S94	2	(vibration with pulse) same duty and wafer	USPAT; USOCR	ADJ	ON	2006/03/30 08:36
S95	85	"50" and duty near cycle with vibration	USPAT; USOCR	ADJ	ON	2006/03/30 08:37
S96	85	"50" and duty near cycle with vibration	USPAT; USOCR	ADJ	ON	2006/03/30 08:40
S97	0	"50" and duty near cycle with vibration and piezoelectric	USPAT; USOCR	ADJ	ON	2006/03/30 08:40
S98	12	"50" and duty near cycle with vibration and piezoelectric	USPAT; USOCR	ADJ	ON	2006/03/30 11:21
S99	0	wafer with sticking with alarm	USPAT; USOCR	ADJ	ON	2006/03/30 11:22
S10 0	1	wafer with stick with alarm	USPAT; USOCR	ADJ	ON	2006/03/30 11:23
S10 1	673	wafer and alarm and network	USPAT; USOCR	ADJ	ON	2006/03/30 11:24
S10 2	36	wafer same alarm same network	USPAT; USOCR	ADJ	ON	2006/03/30 11:37
S10 3	1	wafer same alarm same network same (stop or halt)	USPAT; USOCR	ADJ	ON	2006/03/30 11:37
S10 4	25	wafer same alarm same network and (stop or halt)	USPAT; USOCR	ADJ	ON	2006/03/30 11:37



## EAST Search History

S10 5	49	(US-20050052817-\$ or US-20050057881-\$ or US-20050183829-\$ or US-20040100007-\$ or US-20020182101-\$ or US-20060017908-\$).did. or (US-6472840-\$ or US-6388861-\$ or US-5969934-\$ or US-6719618-\$ or US-6793767-\$ or US-6925355-\$ or US-5835335-\$ or US-5793192-\$ or US-6522388-\$ or US-6327024-\$ or US-6075375-\$ or US-6431953-\$ or US-6314800-\$ or US-5452177-\$ or US-6686598-\$ or US-7008299-\$ or US-6424137-\$ or US-6358115-\$ or US-6947274-\$ or US-6627263-\$ or US-4433510-\$ or US-5705016-\$ or US-6377060-\$ or US-5060526-\$ or US-6042454-\$ or US-5885132-\$). did. or (US-5688160-\$ or US-5667424-\$ or US-5595522-\$ or US-5562525-\$ or US-5402354-\$ or US-5155523-\$ or US-6654659-\$ or US-6485153-\$ or US-4741212-\$ or US-5993615-\$ or US-6077386-\$). did. or (US-2885571-\$ or US-3026411-\$).did. or (JP-07243977-\$ or JP-2004281783-\$ or JP-2004335570-\$).did. or (SU-1362363-\$).did.	US-PGPUB; USPAT; USOCR; JPO; DERWENT	ADJ	ON	2006/03/30 12:23
S10 6	18	S105 and plasma	US-PGPUB; USPAT; USOCR; JPO; DERWENT	ADJ	ON	2006/03/30 12:26
S10 7	11	S105 and plasma and stick\$3	US-PGPUB; USPAT; USOCR; JPO; DERWENT	ADJ	ON	2006/03/30 12:27
S10 8	251	(plasma or gas) same (wafer with sticking)	US-PGPUB; USPAT; USOCR; JPO; DERWENT	ADJ	ON	2006/03/30 12:28
S10 9	118	(plasma or gas) near15 (wafer with sticking)	US-PGPUB; USPAT; USOCR; JPO; DERWENT	ADJ	ON	2006/03/30 12:28

## EAST Search History

S11 0	0	(plasma or gas) near15 (wafer near2sticking)	US-PGPUB; USPAT; USOCR; JPO; DERWENT	ADJ	ON	2006/03/30 12:28
S11 1	69	(plasma or gas) near15 (wafer near2 sticking)	US-PGPUB; USPAT; USOCR; JPO; DERWENT	ADJ	ON	2006/03/30 12:29
S11 2	41	(plasma or gas) near15 (wafer near2 sticking)	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/03/30 12:34
S11 3	35	(gas) near15 (wafer near2 sticking)	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/03/30 12:35
S11 4	6	"952709".ap.	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/03/30 12:36
S11 5	5	"951709".ap.	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/03/30 12:36
S11 6	5	("5310453"   "5665167"   "5900062"   "5904779"   "5981913").PN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/03/30 12:37
S11 7	4	S116 and gas	US-PGPUB; USPAT; USOCR	ADJ	ON	2006/03/30 12:38
S11 8	1	("5874361").PN.	USPAT; USOCR	OR	OFF	2006/03/30 13:56